

passengers or crew. Equivalent protection may include lifelines, wire rope, chains, and bulwarks, which provide strength and support equivalent to fixed rails. Deck rails must include a top rail with the minimum height required by this section, and lower courses or equivalent protection as required by this section.

(b) Deck rails must be designed and constructed to withstand a point load of 91 kilograms (200 pounds) applied at any point in any direction, and a uniform load of 74 kilograms per meter (50 pounds per foot) applied to the top rail in any direction. The point and uniform loads do not need to be applied simultaneously.

(c) Where space limitations make deck rails impractical for areas designed for crew use only, such as at narrow catwalks in way of deckhouse sides, hand grabs may be substituted.

(d) The height of top rails required by paragraph (a) of this section must be as follows:

(1) Rails on passenger decks of a ferry or a vessel engaged in excursion trips, including but not limited to sightseeing trips, dinner and party cruises, and overnight cruises, must be at least 1,000 millimeters (39.5 inches) high.

(2) Rails on a vessel subject to the 1966 International Convention on Load Lines must be at least 1,000 millimeters (39.5 inches) high.

(3) All other rails must be at least 910 millimeters (36 inches) high.

(4) While engaged in big game angling, the minimum rail height may be reduced to not less than 760 millimeters (30 inches) in way of a person using specialized angling techniques or equipment, such as when using a pedestal mounted fixed fighting chair on a low freeboard vessel, if it can be shown that a higher rail would interfere with the fishing operation and the lower rail would not significantly reduce safety. A rail complying with the requirements of paragraphs (d)(1), (2), or (3) of this section as applicable must be installed when big game angling is not being conducted.

(e) Where the principal business of the vessel requires the discharge of persons or cargo in a seaway, such as on pilot boats and dive boats, the cognizant OCMI may accept alternatives

to the rails required in paragraphs (d)(1), (2), and (3) of this section for those areas of a deck where passengers or cargo are discharged and for which removable rails, lifelines, or chains would hinder discharge operations.

(f) A sailing vessel, an open boat, or any other vessel not specifically covered elsewhere in this section, must have rails of a minimum height or equivalent protection as considered necessary by the cognizant OCMI, based on the vessel's operation, route, and seating arrangement.

(g) Rail courses or the equivalent must be installed between a top rail required by paragraph (a) of this section, and the deck so that no open space exists that is more than 305 millimeters (12 inches) high except:

(1) On passenger decks of a ferry or of a vessel on an excursion trip the following must be installed:

(i) Bulwarks;

(ii) Chain link fencing or wire mesh that has openings of not more than 4 inches in diameter; or

(iii) Bars, slats, rail courses, or an equivalent spaced at intervals of not more than 100 millimeters (4 inches).

(2) On a vessel subject to the 1966 International Convention on Load Lines, rail courses, or an equivalent, must be installed so that there is not an open space higher than 230 millimeters (9 inches) from the deck to the first rail course or equivalent.

(h) Rails must be permanently installed except that the following rails may be removable:

(1) Rails in way of embarkation stations and boarding locations;

(2) Rails over 760 millimeters (30 inches) high in way of fishing seats addressed by paragraph (d)(4) of this section; and

(3) Rails on a vessel when the service of the vessel is routinely changed, as determined by the cognizant OCMI, and the required top rail height varies depending on the service of the vessel at a particular time.

#### § 177.920 Storm rails.

Suitable storm rails or hand grabs must be installed where necessary in passageways, at deckhouse sides, and at ladders and hatches.